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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/684,835	10/15/2003	Sung-Ill Kang	45877	9867

7590 04/24/2006

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EXAMINER	
D AGOSTA, STEPHEN M	
ART UNIT	**PAPER NUMBER**
2617	

DATE MAILED: 04/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	**Application No.** 10/684,835	**Applicant(s)** KANG ET AL.	
	Examiner Stephen M. D'Agosta	**Art Unit** 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 April 2006*.
2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5,6 and 9-21* is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-3,5,6 and 9-21* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a)☐ All b)☐ Some * c)☐ None of:
1.☐ Certified copies of the priority documents have been received.
2.☐ Certified copies of the priority documents have been received in Application No. _____.
3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

A new rejection is found attached which responds to the amendments made in the RCE received 4-10-2006.

A more favorable outcome may occur if the applicant amends as follows:

Claim 1 + 2 + 10 + (12 or 13 or 15 or 18 or 20)

Claim 3 + 2 + 10 + (12 or 13 or 15 or 18 or 20)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3, 5-6, 9 and 14 rejected under 35 U.S.C. 103(a) as being unpatentable over Jannick et al. US 2003/0017810 and further in view of SanGiovanni US 6,850,784 and Gray US 5,485,517.

As per **claims 1 and 3,** Jannick teaches a portable communication device (title and abstract) comprising:

a first housing having a first end and a second end_(figure 2 shows first/upper housing, #120),

a second/lower housing (fig 2, #220) such that the angle between a longitudinal axis of the second housing and that of the first housing varies (figure 2 shows upper housing pivoting/swiveling around central cylinder forming different angles);

a cylindrical stationary housing formed integrally to the first end of the first housing (figure 2 shows a cylindrical housing #122 connecting to the housings)

a cylindrical rotary housing rotatably attached to the cylindrical stationary housing (figure 2 shows upper housing and lower housing rotatably attached to the cylindrical housing), wherein the second housing is rotatably connected to the first housing via the cylindrical rotary housing wherein the second housing can be rotated about one axes (figure 2).

But is silent on rotated such that the angle between one surface of the second housing and a corresponding surface of the first housing varies AND rotated about a second axis AND the cylindrical stationary housing being narrower in width than the first end of the first housing AND the cylindrical hinge housing having a protrusion formed at the outer circumferential surface of the cylindrical for restricting the rotation of the second housing.

To clarify, the primary examiner interprets Jannick as not disclosing a phone that can be closed as per well known "clamshell" phones. The swiveling operation is disclosed.

As stated above, clamshell phones are well known in the art. **SanGiovanni** teaches a modular two-body design (title) which can be closed (see figure 2) and swiveled (see figures 4a-b). He also discloses a "cylindrical-type" housing as shown in figure 1, #116).

Gray teaches a phone with two housings (each having two ends) which uses a swivel chassis that connects the two housings together and is narrower in width than the first end of the first housing (see figs 1-2 showing swivel phone and figure 8 which shows the cylinder being narrower than the two housings).

Both Jannick and Gray teach "stopping mechanisms" that allow the phone to be positioned in certain "operable positions". Jannick teaches a détente that correctly positions the phone (Para #28 and figure 3, #330) while Gray teaches the phone being locked into position by springs (C4, L24-38). As seen, there are different techniques that can be used (eg. détente or spring) and different designs as to how the "stopping" is performed (eg. clicking into place via détente or having spring force the device into position). Therefore, the examiner believes these disclosures read a protrusion being formed at the outer circumferential surface.

With further regard to claim 3, Jannick teaches a cylindrical hinge (see figures 2-4) which protrudes while SanGiovanni/Kfoury disclose the rotating hinge AND wherein the second housing has substantially a semicircular opening, the cylindrical hinge housing being partially disposed in the semicircular opening (see figures 2-4 AND Gray who teaches a cylindrical housing).

It would have been obvious to one skilled in the art at the time of the invention to modify Jannick, such that it is rotated such that the angle between one surface of the second housing and a corresponding surface of the first housing varies AND rotated about a second axis with a cylindrical stationary housing being narrower in width than the first end of the first housing, to provide means for operating the phone at different angles/planes which reduces the profile/size of the phone.

As per **claim 2,** Jannick teaches claim 1, **but is silent on** wherein the cylindrical stationary housing and the cylindrical rotary housing are disposed at the central position of one end of the first housing.

Jannick discloses the cylinder being located in the middle of the phone and connected to both housings (see figure 3). SanGiovanni and Kfoury all disclose different variations on how the housings can be connected. Hence, the primary examiner believes that the cylindrical stationary housing and the cylindrical rotary housing can be disposed at the central position of one end of the first OR SECOND housing.

It would have been obvious to one skilled in the art at the time of the invention to modify Jannick, such that the cylindrical stationary housing and the cylindrical rotary housing are disposed at the central position of one end of the first housing, to provide means for there to be a central swivel point that essentially cuts the phone's size in half.

As per **claim 5,** Jannick teaches claim 3, wherein the cylindrical hinge housing comprises:

a cylindrical rotary housing rotatably attached to the cylindrical stationary housing (figure 3 shows rotating housing, bottom 3 pieces of the exploded view which rotate inside the stationary housing, #130, #140, #310).

But is silent on a cylindrical stationary housing.

Jannick does show the lower housing being part of the cylindrical housing (figure 3 shows a stationary housing which is part of the lower housing, #120/#122 and formed in a cylindrical fashion).

SanGiovanni discloses different variations on how the housings can be connected. Hence, the primary examiner believes that the cylindrical stationary housing and the cylindrical rotary housing can be disposed/connected in various ways.

It would have been obvious to one skilled in the art at the time of the invention to modify Jannick, such that it has a cylindrical stationary housing, to form a central swivel point for the user to change the shape/position of the phone when operating it.

As per **claim 6,** Jannick teaches claim 5, wherein the cylindrical stationary housing is attached to the first housing, and the cylindrical rotary housing is rotated substantially in the same direction as that of the second housing (figure 2 shows the upper housing that can be rotated around the cylinder/lower housing).

As per **claim 9,** Jannick teaches claim 3, wherein the first housing has a plurality of keys and a microphone unit arranged on the top surface of the first/lower housing (figure 2, shows lower housing with keypad #230 and microphone #240), and the second housing has a speaker unit (figure 2, #170) **but is silent on** a main display unit arranged on the bottom surface of the second housing.

Jannick teaches a display on the circular housing (figure 2, #150).

SanGiovanni discloses a main display unit arranged on the bottom surface of the second housing as is well known in clam-like phones.

It would have been obvious to one skilled in the art at the time of the invention to modify Jannick, such that a main display unit arranged on the bottom surface of the second housing, to provide means for the display to be located at different locations on the phone.

As per **claim 14,** Jannick teaches claim 3, wherein the cylindrical hinge housing has a rotary key arranged on the top surface of the cylindrical hinge housing, wherein the rotary key being rotated about the second hinge axis (figures 3-4 show an exploded view whereby the primary examiner interprets the cylindrical hinge housing as part of the lower housing #120 and a "rotary key" as being the lower three pieces, #130/#140/#310 which can be rotated when the housing moves).

Claim 10 rejected under 35 U.S.C. 103(a) as being unpatentable over Jannick/SanGiovanni/Gray and further in view of Sassi US 6,487,396

As per **claim 10,** Jannick teaches claim 3 **but is silent on** wherein the second housing has an auxiliary display unit arranged at a prescribed location on the top surface of the second housing.

Sassi teaches a device with two displays on one half, eg. second housing, see figures 1 and 2.

It would have been obvious to one skilled in the art at the time of the invention to modify Jannick, such that the second housing has an auxiliary display unit arranged at a prescribed location on the top surface of the second housing, to provide means for viewing data without opening the device.

Claims 11-13 and 15-16 rejected under 35 U.S.C. 103(a) as being unpatentable over Jannick/SanGiovanni/Gray and further in view Shibata et al. US 2001/0004269.

As per **claim 11,** Jannick teaches claim 3 **but is silent on** wherein the first housing has a camera lens arranged on one of the side surfaces of the first housing.

Shibata teaches a portable device with a video camera composed on one of the housings (figures 1-6, Para#'s 5, 9, 25-27 and 217).

It would have been obvious to one skilled in the art at the time of the invention to modify Jannick, such that the first housing has a camera lens arranged on one of the side surfaces of the first housing, to provide means for locating the camera lens at different places on the device.

As per **claims 12-13,** Jannick teaches claim 3 **but is silent on** wherein the cylindrical hinge housing has a camera lens arranged on the top surface of the cylindrical hinge housing OR wherein the cylindrical hinge housing has a camera lens arranged on the bottom surface of the cylindrical hinge housing.

Shibata teaches the camera lens can be arranged at different locations (see Para#'s 25-27).

It would have been obvious to one skilled in the art at the time of the invention to modify Jannick, such that the first housing has a camera lens arranged on one of the side surfaces of the first housing, to provide means for locating the camera lens at different places on the device.

As per **claims 15-16,** Jannick teaches claim 3, **but is silent on** wherein the cylindrical hinge housing has a camera lens arranged at the center of the top surface of the cylindrical hinge housing and at least one key disposed around the camera lens OR wherein the cylindrical hinge housing has at least one key arranged on the top surface of the cylindrical hinge housing.

Jannick teaches a device with buttons disposed on the lower housing and cylindrical portion (see figure 2, keyboard on lower housing #230 and buttons on cylinder #130, three places).

Shibata teaches the camera lens can be arranged at different locations (see Para#'s 25-27). Shibata also shows "buttons" also being disposed all over his device (see figures 1, 3, 8-9). Hence one skilled understands that the camera lens and device buttons can be arranged in many different ways.

It would have been obvious to one skilled in the art at the time of the invention to modify Jannick, such that the cylindrical hinge housing has a camera lens arranged at the center of the top surface of the cylindrical hinge housing and at least one key disposed around the camera lens OR wherein the cylindrical hinge housing has at least one key arranged on the top surface of the cylindrical hinge housing, to provide means for different designs to exist for the location of the housings, camera lens and keys.

Claims 17-18 rejected under 35 U.S.C. 103(a) as being unpatentable over Jannick/SanGiovanni/Gray and further in view Shibata and Kim WO-0145283.

As per **claims 17-18,** Jannick teaches claim 3 **but is silent on** wherein the cylindrical hinge housing has a security unit arranged on the top surface of the cylindrical hinge housing AND wherein the security unit comprises a fingerprint-identifying device.

Kim teaches a terminal with a built-in fingerprint recognizer (title, abstract, figures).

Shibata teaches a secondary device (eg. camera) can be arranged at different locations (see Para#'s 25-27). Hence one skilled understands that the fingerprint device can be arranged in many different ways.

It would have been obvious to one skilled in the art at the time of the invention to modify Jannick, such that the cylindrical hinge housing has a security unit arranged on the top surface of the cylindrical hinge housing AND wherein the security unit comprises a fingerprint-identifying device, to provide means for it contain a fingerprint-identifying system located on the device.

Claim 19 rejected under 35 U.S.C. 103(a) as being unpatentable over Jannick/SanGiovanni/Gray and further in view of Ghassabian US 6,535,605.

As per **claim 19,** Jannick teaches claim 3 **but is silent on** wherein the cylindrical hinge housing has an auxiliary display unit arranged on the top surface of the cylindrical hinge housing, wherein the auxiliary display unit being a digital or analog watch.

Ghassabian teaches a wrist-watch cell phone device (title, abstract, figure 5a). Hence one skilled would combine a time piece with a cell phone.

It would have been obvious to one skilled in the art at the time of the invention to modify Jannick, such that the cylindrical hinge housing has an auxiliary display unit arranged on the top surface of the cylindrical hinge housing, wherein the auxiliary display unit being a digital or analog watch, to provide means for tracking/keeping time on the device.

Claim 20 rejected under 35 U.S.C. 103(a) as being unpatentable over Jannick/SanGiovanni/Gray and further in view of Luu US 6,766,952.

As per **claim 20,** Jannick teaches claim 3 **but is silent on** wherein the first housing has a slot formed at one of the side surfaces of the first housing for allowing the insertion of a memory card therethrough.

Luu teaches "..SIM cards are most commonly used in communication devices such as mobile telephones to enable a user to access an individual account or a particular wireless telephone network in a specific country. Each SIM card contains the configuration information for a designated network, and also contains information identifying the user, such as the user's mobile telephone number. The identity or memory card is inserted into the body of the mobile telephone via a user-accessible interface, typically formed in or on a surface of the mobile phone housing, such as the surface which is covered by and contacts a detachable battery pack of the phone. When inserted into the telephone, the card is electrically connected to the internal circuitry of the mobile phone, thus enabling the mobile phone to access information from the identification/memory card." (C1, L35-50).

It would have been obvious to one skilled in the art at the time of the invention to modify Jannick, such that the first housing has a slot formed at one of the side surfaces of the first housing for allowing the insertion of a memory card therethrough, to provide support for the device to accept memory cards.

Claim 21 rejected under 35 U.S.C. 103(a) as being unpatentable over Jannick/SanGiovanni/Gray and further in view of Han et al. US 6,726,106.

As per **claim 21,** Jannick teaches claim 3 **but is silent on** wherein the first housing has a lighting unit arranged at a prescribed position of the bottom surface of the first housing, wherein the lighting unit comprises a light emitting diode (LED).

Han teaches "..Currently, wireless telephone devices include light emitting diodes (LEDs) that light the keyboard keys of the devices". (C3, L20-25).

It would have been obvious to one skilled in the art at the time of the invention to modify Jannick, such that the first housing has a lighting unit arranged at a prescribed position of the bottom surface of the first housing, wherein the lighting unit comprises a light emitting diode (LED), to provide lighting for operator ease.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

1. Takagi et al. US 5,636,275
2. Chintala et al. US 6,148,079
3. Hartigan et al. US 5,704,094
4. Kudrna US 5,640,690

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. D'Agosta whose telephone number is 571-272-7862. The examiner can normally be reached on M-F, 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bill Trost can be reached on 571-272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

STEVE M. D'AGOSTA
PRIMARY EXAMINER

4-17-2006